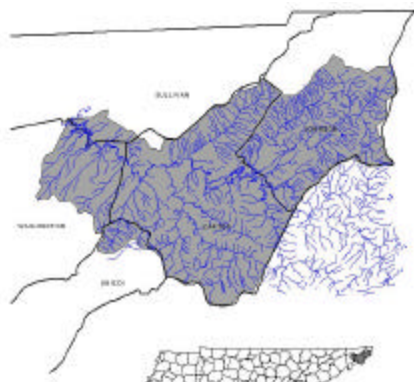


INTRODUCTION



Section 303(d) of the Clean Water Act requires each state to list those waters within its boundaries that do not meet minimum water quality standards for designated use classifications. States are required to develop Total Maximum Daily Loads (TMDLs) for these waterbodies. The TMDL process establishes the maximum amount of a pollutant that a waterbody can assimilate without exceeding water quality standards and allocates a portion of this load to all contributing pollutant sources. The goal of the TMDL is the restoration of water quality of a stream or lake above minimum

acceptable levels through the reduction of pollutant loading.

The TDA-NPS Program, as the delegated state agency for the 319 grant program, has the responsibility to cooperate with TDEC-WPC and all other local, state and federal agencies to establish implementation strategies for the TMDLs developed by TDEC-WPC, for those waterbodies impaired by nonpoint source pollutants.

DESCRIPTION

A Total Maximum Daily Loading (TMDL) is a study that:

- 1.quantifies the amount of a pollutant in a stream,
- 2.identifies the sources of the pollutant,
- 3.and recommends regulatory or other actions that may need to be taken in order for the stream to no longer be polluted.

The following are actions that might be recommended:

Re-allocate limits on the sources of pollutants documented as impacting streams. It might be necessary to lower the amount of pollutants being discharged under NPDES permits or to require the installation of other control measures, if necessary, to insure that standards will be met. For sources the TDEC-WPC does not have regulatory authority over, such as ordinary agricultural and forestry activities, provide information and technical assistance to other state and federal agencies that work directly with these groups to install appropriate Best Management Practices (BMPs).

Even for the impacted streams found on the 303(d) List, TMDL development is not considered appropriate for all bodies of water. If enforcement has already been taken by TDEC-WPC and a compliance schedule has been developed; or if BMPs have already been installed for non-regulated activities, the TMDL is considered not applicable. In cases involving pollution sources in other states, the recommendation may be that another state or EPA perform the TMDL.

TMDL's can be described by the following equation:

1.11 TMDL IMPLEMENTATION

TMDL = sum of non point sources + sum of point sources + margin of safety

How are TMDLs Prioritized?

The 303(d) List was last updated in 1998. In the interim, the TDEC-WPC has restructured monitoring and permitting activities on a rotating watershed basis. In keeping with this approach, Tennessee has decided to develop TMDLs on a rotating watershed basis. Each watershed will be examined on a five-year cycle.

A typical cycle will generally include:

- Year 1: Hold planning meetings with "stakeholders". Stakeholders include citizens, environmental groups, other governmental agencies, municipalities, industries, and other interested parties. Develop a monitoring plan. •
- Year 2: Collect water quality data. •
- Year 3: Collect water quality data. •
- Year 4: Water quality assessment activities. Perform modeling and TMDL generation. •
- Year 5: Publish a watershed plan, which includes the proposed actions to be taken to insure that water quality standards will be met. Issue draft NPDES permits and hold public hearings.
- Year 6: Issue final permits after comments have been addressed. Begin cycle again in sixth year.

Tennessee's TMDL Program

•The draft 1998 303(d) list has been released and made available for public review. The 303(d) list is a compilation of the streams and lakes in Tennessee that are "water quality limited" and need additional pollution controls. Water quality limited streams are those that have one or more properties that violate water quality standards. Therefore, the stream or lake is considered to be impacted by pollution and is not fully meeting its designated uses.

Additionally, the 303(d) List prioritizes each of these water quality limited streams in regard to how quickly a TMDL should be performed on each.

The schedule for development is listed in the following table:

Watershed Group	Year	No. of High Priority TMDLs	Year	No. of Low Priority TMDLs
1	2000	14	2005	53
2	2001	20	2006	49
3	2002	12	2007	44
4	2003	7	2008	60
5	2004	17	2009	58

Statutory Requirements under Clean Water Act Section 303(d)

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States must, from time to time, develop lists of waters that do not meet State water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. States must establish priority rankings for waters on the lists based on severity of pollution and uses to be made of the waterbodies, such as fish and aquatic life, recreation, drinking water supply, irrigation, industrial water supply, navigation, and/or livestock watering and wildlife. States must develop TMDLs for waters on the lists. TMDLs specify the amount of a pollutant that needs to be reduced to meet State water quality standards and allocate pollution control needs among pollution sources in a watershed. EPA must approve or disapprove State lists and TMDLs within 30 days of final submission. EPA must establish lists of waters and TMDLs for states when EPA disapproves of the states' lists.

Implementing Regulations (40 CFR Section 130.7)

- Waters still needing TMDLs are those for which technology-based controls or other required pollution controls are not stringent enough to implement water quality standards.
- States must submit lists of waters needing TMDLs every two years (April 1 of even numbered years).
- States must target those waters for which TMDLs will be developed over the next two years.

The Five Steps of the TMDL Process

1. Identify Water Quality-Limited Waters
2. Prioritize Water Quality-Limited Waters
3. Develop the TMDL Plan
4. Implement Water Quality Improvement Actions
5. Assess Water Quality Improvement Actions

MILESTONES

Long Term Goal 1.

Hold regularly scheduled meetings with stakeholders to create new partnerships, strengthen existing partnerships, and to foster greater trust, commitment and accountability.

- **Action 1:** Collaborate annually with watershed partners to plan TMDL implementation strategies.
- Leads: TDEC-WPC and TDA-NPS Program
- Key Partners: USDA-NRCS; UTIA; TVA; TACD; TNRC&D
- Year(s): 2001-2005

1.11 TMDL IMPLEMENTATION



- **Action 2:** Develop Memoranda of Agreement with key federal agencies to improve programmatic consistency.
Lead: TDA-NPS Program
Key Partners: All federal agency partners
Year(s): 2001-2005

Long Term Goal 2.

Fully implement all developed TMDLs for nonpoint sources in compliance with existing regulations, policies, or agreements by 2015.

- **Action 1:** Develop a standard implementation protocol.
Leads: TDEC-WPC and TDA-NPS Program
Key Partners: USDA-NRCS; UTIA; TVA; TACD; TNRC&D
Year(s): 2001
- **Action 2:** Collect or update site specific land use information to target BMP implementation for 100% of developed TMDLs.
Leads: TDA-NPS Program
Key Partners: TDEC-WPC; USDA-NRCS; UTIA; TVA; TACD; TNRC&D
Years: 2001-2005
- **Action 3:** Create site specific implementation plans for 100% of the TMDLs developed.
Leads: TDA-NPS Program
Key Partners: TDEC-WPC; USDA-NRCS; UTIA; TVA; TACD; TNRC&D
Years: 2001-2005
- **Action 4:** Track the status of 100% of the implementation plans to determine program effectiveness.
Leads: TDA-NPS Program and TDEC-WPC
Key Partners: USDA-NRCS; UTIA; TVA; TACD; TNRC&D
Year(s): 2001-2005

Long Term Goal 3.

Restore all waters impaired by nonpoint sources that are listed on the 1998 303(d) List to the condition of fully supporting their designated uses by 2015, in cooperation with local, state and federal partners.

The Goal does not apply to this chapter.

Long Term Goal 4.

Beginning in 2006, through regulatory and non-regulatory means, prevent previously unlisted waters from being included on the 303(d) List because of nonpoint source impairments.

The Goal does not apply to this chapter.



Long Term Goal 5.

Improve the knowledge of stakeholders and citizens concerning the origins, magnitude, and prevention of nonpoint source pollution.

- **Action 1:** Conduct at least eight Watershed Meetings annually.
Lead: TDEC-WPC
Key partners: TDA-NPS Program
Year(s): 2001-2005

Long Term Goal 6.

Through the process of continuous improvement, routinely assess all programmatic functions of the TDA-NPS Program in order to maximize efficiency, decrease the bureaucratic burden and increase the numbers of participants in the program.

The Goal does not apply to this chapter.

Long Term Goal 7

Use the maximum allowable percentage of funding annually to assist partners with water quality monitoring and assessment, for the duration of the 319 program.

See Chapter 1.9 for action items related to water quality monitoring for the TDA-NPS Program.